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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,453	08/26/2003	Bruce Foster	27087/39162	5076

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EXAMINER
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EPSHTEYN, ALEXANDER

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/648,453

Applicant(s)

FOSTER, BRUCE

Examiner

Alex Epshteyn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-12 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 14-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 12 is once again objected because of the following informalities: "...the conductive pattern of at least one of the of a substrates" should be changed to "...the conductive pattern of at least one of the substrates."

Claim 22 includes the following informalities: The status identifier of claim 12 should be new and not original.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-12, and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billings et al. (US Patent 5,087,043) in view of Pierce (US Patent 5,356,296).

In regards to claims 1 and 12, Billings teaches of a puzzle comprising a base having a receiving area, a plurality of puzzle pieces, the puzzle pieces being sized for placement on the receiving area and cooperating to form an assembled image, and a sound generator mounted to the base and arranged for connection to a power source (2: 25-47). Billings further teaches of the puzzle containing multiple substrates including a first substrate and a second substrate arranged for placement beneath the receiving area. The first substrate includes a conductive pattern operatively coupled to the sound

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generator and the second substrate comprises a conductive sheet, where a portion of the conductive pattern is disposed beneath a selected portion of the image (column 5, and figure 2). The first substrate is comprised of paper chipboard and the second substrate with a conductive sheet is also attached on a paper backboard (5: 20-42). The conductive sheet and the conductive pattern are displaceable to permit contact between the conductive pattern and the conductive sheet upon pressing the selected portion of the image such that the first and second substrates cooperate to form an electrical circuit (5: 43-48).

Billings does not teach of using conductive ink and conductive dots to permit the contact between the dot and the conductive pattern. It would be notoriously obvious and well known to one skilled in the art to use conductive ink and conductive dots instead of a conductive sheet as is currently used by Billings. One skilled in the art would be inclined to replace the conductive sheet of Billings with simple conductive dots under the respective puzzle pieces to save on material costs. As an example of this concept, which is well known in the art, Pierce teaches of an audio storybook which has substrates that are made of paper (2: 10-46) and uses conductive ink (2: 49-51) below each graphic to complete an electronic circuit using conductive dots with this conductive ink (figure 6). While Pierce does not explicitly teach that each respective substrate of the invention is made of paper, it is suggested by Pierce that paper is a typical use of the substrate (2: 10-46) and it can be seen from Figures 12-18 that each layer and substrate could be made of paper as suggested by Pierce and well known to one skilled in the art that such books are typically made of thick cardboard or the like. It is also

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seen by figure 6 that Pierce uses conductive dots with the conductive ink to complete the electrical circuit.

In regards to claim 4 Billings teaches of a substrate that is made of paper (5: 38-42).

In regards to claims 3 and 14, Billings teaches of a third substrate having an aperture disposed adjacent to the first and second substrates (5: 34-37). The third substrate has an aperture disposed for alignment with the conductive dot.

In regards to claims 5, 15, and 22, while Billings does not explicitly teach of the third substrate being comprised of the same single paperboard as the first and second substrate, it would be obvious for one skilled in the art to make the substrates out of the same material so as to save on material and production costs. This would also make production of the storybook easy to manufacture since the printing process would only have to be applied to a single sheet. This is undisputed by Applicant.

In regards to claim 6, while Billings does not explicitly teach of paperboard that is die cut, Billings does teach of cutout pieces such as puzzle pieces and electronic board pieces. It is obvious to one skilled in the art that a cutout piece would be cut in the manufacturing process. This argument is undisputed by Applicant.

In regards to claim 7 and 16, Billings does not teach of separating the substrates with fold lines. However, it is obvious to one skilled in the art that separating different components of an electrical system with fold lines is a common technique to permit portability and ease of maintenance of the different electrical components. Thus, it

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would be obvious for one skilled in the art to incorporate separating the different substrates of Billings with fold lines. This argument is undisputed by applicant.

In regards to claim 8 and 17, while Billings does not explicitly teach of applying the conductive ink of the substrates in one printing operation, it is obvious for one skilled in the art to only use one printing operation to perform a printing action. This reduces costs since multiple printing operations cost more production cost and occupy more time to produce the product. Thus, it would be obvious for one skilled in the art to use only one printing operation to print the conductive ink on the substrates.

In regards to claims 9 and 18, Billings teaches of a conductive pattern that includes a first portion and a second portion, where the portions are aligned to the different portions of the puzzle, and wherein the conductive patterns are arranged to connect the first portion and the second portion upon pressing the selected portion of the image (column 5).

In regards to claim 10 and 19, Billings teaches of a puzzle where the first substrate includes a plurality of conductive patterns, the second substrate includes a conductive sheet, and the assembled image includes a plurality of selected portions, wherein the sound generator is arranged to generate a distinct sound in response to pressing each of the plurality of selected portions (5: 43-65).

Billings does not teach of using conductive ink and conductive dots to permit the contact between the dot and the conductive pattern. It would be notoriously obvious and well known to one skilled in the art to use conductive ink and conductive dots instead of a conductive sheet as is currently used by Billings. One skilled in the art

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would be inclined to replace the conductive sheet of Billings with simple conductive dots under the respective puzzle pieces to save on material costs. As an example of this concept, which is well known in the art, Pierce teaches of an audio storybook which has substrates that are made of paper (2: 10-46) and uses conductive ink (2: 49-51) below each graphic to complete an electronic circuit using conductive dots with this conductive ink (figure 6). It would be obvious to one skilled in the art to incorporate conductive dots with conductive ink to save on material costs for the puzzle.

In regards to claim 11, Billings teaches of including a plurality of tabs in the substrates so as to effectively retain the substrates in the base (6: 9-36).

In regards to claims 20 and 21, Billings teaches of a puzzle comprising a base having a receiving area, a plurality of puzzle pieces, the puzzle pieces sized for placement on the receiving area and adapted to form an assembled image having a plurality of selected areas, and a sound generator mounted to the base and arranged for connection to a power source, and an electrical circuit disposed beneath the receiving area and formed by a first substrate and a second substrate, the first substrate having a plurality of conductive ink patterns and the second substrate having conductive sheet, where the patterns of the first substrate and the sheet of the second substrate align to operate the sound generator (2: 25-48). Billings also teaches of a third substrate positioned to maintain the dots and the patterns in spaced relation until the selected area is depressed (5: 34-37).

Billings does not teach of using conductive ink and conductive dots to permit the contact between the dot and the conductive pattern. It would be notoriously obvious

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and well known to one skilled in the art to use conductive ink and conductive dots instead of a conductive sheet as is currently used by Billings. One skilled in the art would be inclined to replace the conductive sheet of Billings with simple conductive dots under the respective puzzle pieces to save on material costs. As an example of this concept, which is well known in the art, Pierce teaches of an audio storybook which has substrates that are made of paper (2: 10-46) and uses conductive ink (2: 49-51) below each graphic to complete an electronic circuit using conductive dots with this conductive ink (figure 6). It would be obvious to one skilled in the art to incorporate conductive dots with conductive ink to save on material costs for the puzzle.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Epshteyn whose telephone number is 571-272-5561. The examiner can normally be reached on M-F 8 - 4:30.

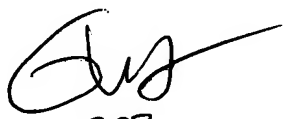
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Olszewski can be reached on 571-272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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